

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number
WO 03/105140 A1(51) International Patent Classification⁷: **G11B 7/007**(21) International Application Number: **PCT/KR03/01112**(22) International Filing Date: **5 June 2003 (05.06.2003)**(25) Filing Language: **English**(26) Publication Language: **English**

(30) Priority Data:

| | | |
|-----------------|--------------------------|----|
| 10-2002-0031744 | 5 June 2002 (05.06.2002) | KR |
| 10-2002-0031745 | 5 June 2002 (05.06.2002) | KR |
| 10-2002-0031746 | 5 June 2002 (05.06.2002) | KR |

(71) Applicant (for all designated States except US): **LG ELECTRONICS INC.** [KR/KR]; 20, Yoido-dong, Youngdungpo-gu, Seoul 150-010 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Jin Yong**

[KR/KR]; 109-602, Seonkyung Apt., Yatap-dong, Bundang-gu, Seongnam, Kyunggi-do 463-928 (KR). **SUH, Sang Woon** [KR/KR]; 110-709, Hyundai Apt., 1346, Seocho 2-dong, Seocho-gu, Seoul 137-861 (KR).

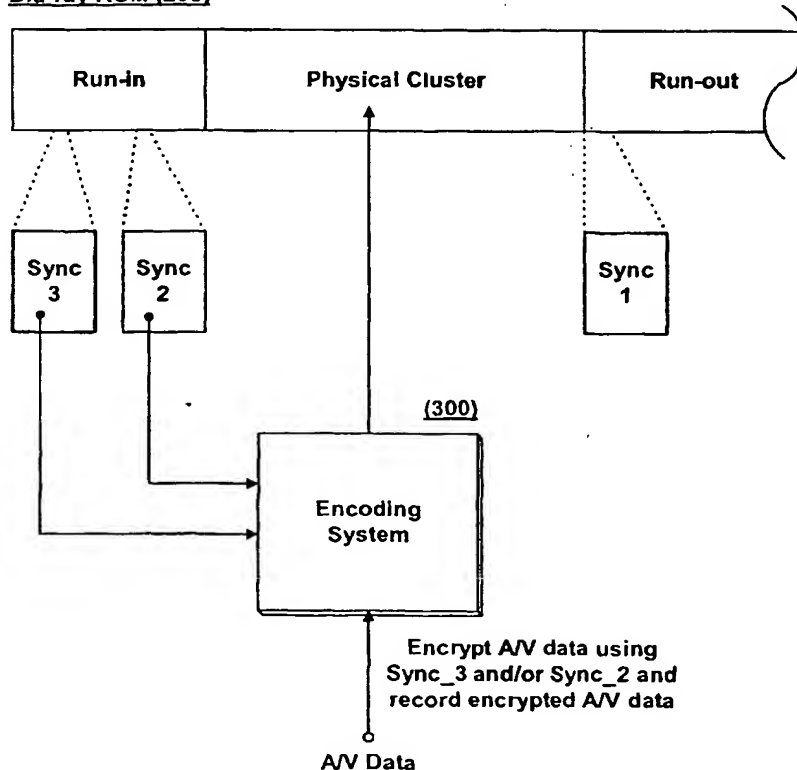
(74) Agent: **PARK, Lae Bong**; 1Fl., Dongun Bldg., 413-4, Dogok 2-dong, Kangnam-gu, Seoul 135-272 (KR).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: **HIGH-DENSITY OPTICAL DISC, METHOD FOR RECORDING AND REPRODUCING ENCRYPTED DATA THEREON**

Blu-ray ROM (200)

(57) Abstract: A high-density optical disc, a method for encrypting data and recording the encrypted data thereon, and a method for reproducing the encrypted data recorded thereon. Data recorded on a high-density optical disc such as a Blu-ray disc-read only memory (BD-ROM) is recorded in a discontinuous recording format as on a high-density rewritable optical disc such as a Blu-ray disc rewritable (BD-RE). Data can be encrypted and recorded using synchronous data, address unit number (AUN) information or disc radius information recorded in the high-density optical disc. An optical disc apparatus such as a BD-ROM player can maintain reproduction compatibility with the high-density rewritable optical disc such as the BD-RE. A user holding an optical disc apparatus such as a BD-RE recorder, etc. can be prevented from unlawfully copying data recorded on the high-density optical disc and reproducing the copied data.

WO 03/105140 A1